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THE FARM COST SITUATION

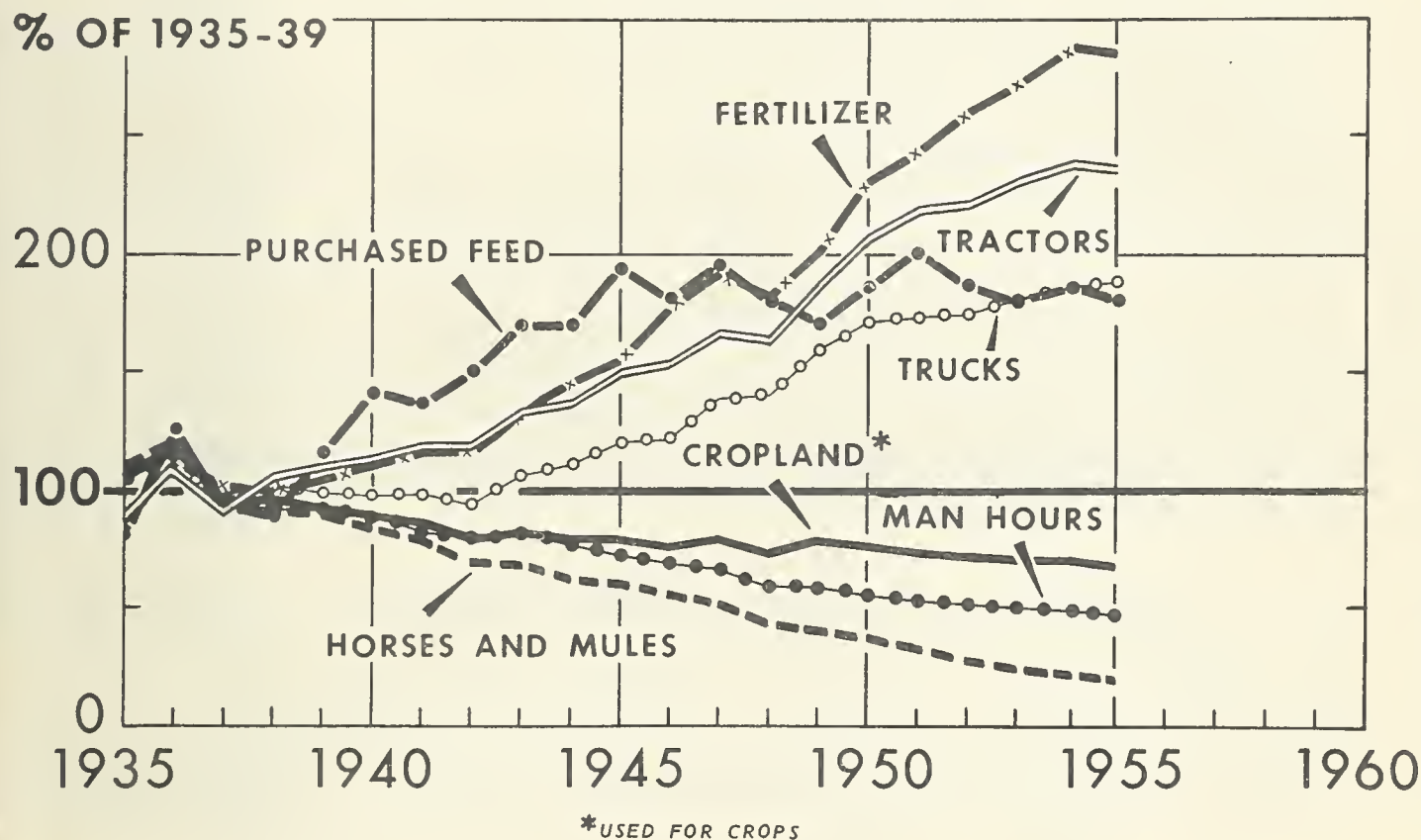
Agricultural Research Service
UNITED STATES DEPARTMENT OF AGRICULTURE

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SELECTED RESOURCES USED

Per Unit of Farm Output



U. S. DEPARTMENT OF AGRICULTURE

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Certain farm production factors like fertilizer and tractors have increased in relation to farm output in recent decades, whereas others like work animals and manpower have declined. Although the acreage of cropland used for crops has remained fairly stable since 1935, it too has declined in relation to farm output.

Goods and services used in production: Cost rates and prices paid by farmers, United States

Index numbers (1947-49=100)

Year or period	Commodities, interest, taxes, and wage rates	Commodities: only	Feed	Livestock	Motor supplies	Motor vehicles	Farm machinery	Farm supplies	Building and fencing materials	Ferti- lizer	Seed	Wage rates
1910-14			43	29	---	---	42	42	34	70	41	23
1915-19	39	42	68	44	---	---	54	70	48	101	62	34
1920-24	59	63	60	33	---	---	65	77	57	101	60	42
1925-29	65	61	58	44	94	49	64	73	54	92	60	43
1930-34	50	47	39	25	74	49	61	61	47	75	40	28
1935-39	49	52	45	36	74	56	64	60	49	71	49	28
1940	49	52	43	41	71	56	64	62	49	69	42	30
1941	53	55	47	46	74	59	65	66	53	69	40	35
1942	60	62	57	54	79	64	69	73	58	76	54	46
1943	68	69	57	61	81	67	71	82	60	81	68	61
1944	73	73	75	58	82	73	73	86	64	83	77	74
1945	77	74	74	63	82	75	74	87	66	84	79	83
1946	83	81	87	72	84	77	76	88	72	85	81	90
1947	95	95	102	90	92	90	86	95	93	93	93	97
1948	104	105	109	111	103	100	101	100	104	102	109	103
1949	101	100	89	99	105	110	113	105	103	105	98	100
1950	104	104	91	116	106	110	115	105	105	101	94	99
1951	115	115	102	141	111	118	124	112	117	106	96	109
1952	117	116	109	118	112	123	129	119	118	109	109	117
1953	112	106	98	83	114	122	130	120	118	110	100	119
1954	112	106	98	85	116	123	131	117	119	108	93	119
1955	112	105	92	84	117	126	132	114	122	107	102	120
July	112	105	91	81	---	124	---	---	---	---	---	119
Aug.	111	104	89	80	---	---	---	---	---	---	---	---
Sept.	111	104	87	81	116	126	134	113	123	106	94	---
Oct.	111	104	87	82	---	---	---	---	---	---	---	120
Nov.	111	103	86	77	---	129	---	---	---	---	---	---
Dec.	111	103	87	72	116	130	135	114	124	---	---	---
1956												
Jan.	112	104	87	78	---	129	---	---	---	---	---	121
Feb.	112	103	87	78	---	---	---	---	---	---	85	---
Mar.	112	104	87	79	117	130	136	117	125	---	85	---
Apr.	114	105	88	81	---	---	---	117	---	105	86	125
May	115	105	91	81	---	---	---	---	---	---	86	---
June	114	105	90	76	118	130	138	117	127	---	---	---
July	113	105	90	76	---	130	---	---	---	---	---	124
Aug.	114	105	91	79	---	---	---	---	---	---	---	---
Sept.	115	106	91	80	120	---	141	117	128	106	90	---
Oct.	115	105	89	78	---	---	---	---	---	---	---	128

THE FARM COST SITUATION

Approved by the Outlook and Situation Board, November 15, 1956

CONTENTS

	<u>Page</u>		<u>Page</u>
General Situation	3	Building Materials	22
Farm Labor	9	Farm Supplies	23
Farm Power and Machinery	11	Farm Real Estate	23
Feed	17	Interest, Taxes, and Insurance	26
Seed	20	Costs and Returns on 4 Selected	
Fertilizer	20	Types of Farms in 1956	29

GENERAL SITUATION

Farmers' production cost rates continue to rise. The index of prices paid by farmers for commodities used in production, including interest, taxes and wage rates, was 3 percent higher in mid-October than a year earlier. Prices for all groups of items comprising this index, except fertilizer, feeder livestock and seed, have increased since a year ago. Many of these increases have taken place fairly recently and some further increases are likely to occur, so that cost rates in general are expected to average somewhat higher in 1957 than in 1956.

Many of the cost changes in the last decade have been cumulative in nature. Since 1947-49, the overall index of farmers' production cost rates has risen nearly 15 percent, although prices paid for items of industrial origin, interest, taxes, and wage rates have advanced more than 30 percent. Prices paid for production items that originate on farms, however, have declined about 15 percent.

Cost rates changed from 1947-49 to 1956 about as follows:

Farm real estate taxes per acre	Up 56 percent
Farm real estate prices	Up 40 "
Farm machinery prices	Up 40 "
Motor vehicle prices	Up 31 "
Farm wage rates	Up 28 "
Building and fencing material prices	Up 28 "
Motor supply prices	Up 20 "
Farm supply prices	Up 17 "
Farm-mortgage interest rates	Up 10 "
Fertilizer prices	Up 6 "
Seed prices	Down 10 "
Feed prices	Down 11 "
Feeder livestock prices	Down 22 "

Farm cost rates expected in 1957 relative to 1956 are as follows:

Farm property taxes per acre, interest rates, farm wage rates, and prices paid for farm machinery, motor vehicles, and motor supplies are expected to be moderately higher.

Farm real estate values, and prices paid for building and fencing materials, farm supplies, feed, feeder livestock, and seed are expected to be about the same or slightly higher.

The price of fertilizer is expected to average slightly lower per ton of plant nutrients but slightly higher per ton of gross weight.

Looking Ahead 3 to 5 Years

Many of the forces that have governed farm cost rates in recent years are likely to continue to operate in the years ahead. Nonfarm employment opportunities will continue to influence the rural labor supply and farm wage rates. The expanded highway construction program may increase nonfarm employment opportunities in rural areas. Young men who are skilled operators of modern farm machinery can be readily trained to operate road-building equipment. Also, as better highways make rural areas more accessible to urban centers, they may also increase the nonfarm employment opportunities of farmers and farmworkers.

Competition for the available supply of labor, steel, and other materials used to produce farm machinery and other industrial commodities that farmers buy is likely to prevent much, if any, reduction in prices of these items. The expectation is that prices of these industrial items may increase slightly (fig. 1).

Prices of feed, feeder livestock, and seed will tend to fluctuate with prices of farm products in general. Prices of feeder cattle will depend chiefly on range conditions and prices of fat cattle. With the anticipated increase in adoption of more efficient methods of hog feeding, prices of feeder pigs are likely to increase in relation to prices received for market hogs. Prices of baby chicks and poults will probably decline somewhat in relation to prices of broilers and turkeys which were unfavorable in 1956.

Prices of farm real estate will probably continue to rise. The trend toward larger but fewer farms will go on. It will take at least several years for the size of farms to catch up with modern technology. The acreage that farm families can operate without outside help has greatly increased. Farmers whose farms are too small to fully utilize machinery and labor can be expected to bid against one another for the land that is offered for sale in their localities. Many farmers can afford to pay present prices for land if additional land will permit them to take full advantage of modern labor-saving machinery.

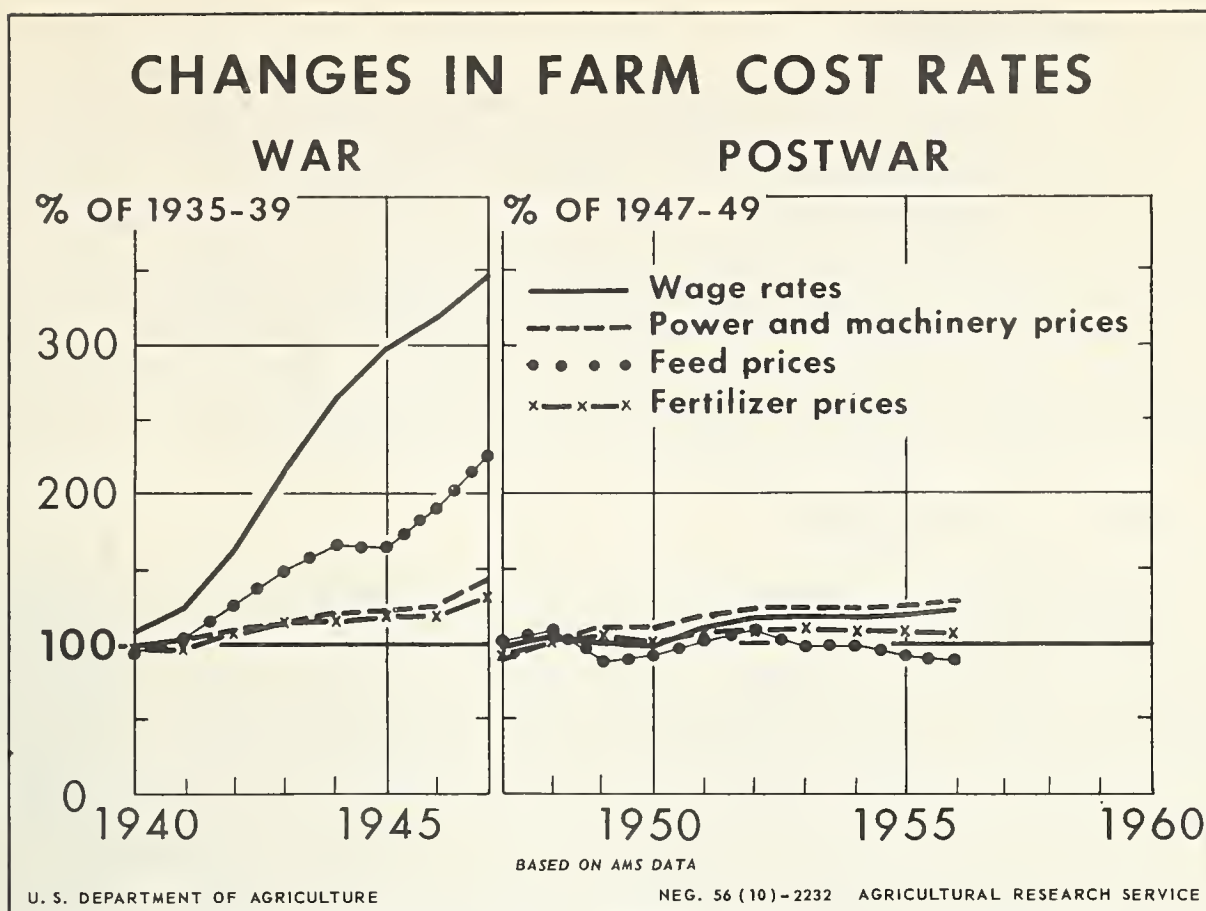


Figure 1

The Soil Bank is a new factor to be considered. It may tend to increase the demand for farmland and reduce the demand for hired labor, machinery, and certain other production items that farmers buy. If it is successful in reducing production, it will probably cause total cost per unit of output to increase because overhead items like taxes, interest, and depreciation would be spread over fewer units of output. For farm income, however, this possible increase in cost per unit of output will be offset by increases in soil bank payments and possibly by increases in prices received by farmers.

Prices paid for fertilizer per pound of plant nutrients may continue to decline. Upward trends in plant nutrient content of fertilizers and in bulk handling (dry and liquid) are expected to continue. These have contributed to the decline in plant nutrient unit costs and will continue to do so. Although the demand for fertilizer has increased quite rapidly in recent years, the facilities for manufacturing chemical fertilizers have increased even faster. This is especially true of the capacity for producing anhydrous ammonia, a relatively cheap source of nitrogen.

All of these projections or forecasts are based on the assumption of a continued high level of peacetime employment.

Cost-Price Relationship

The relationship between farm cost rates and prices received by farmers is about the same as it was a year ago and about the same as in 1935-39 though considerably less favorable to farmers than it was in 1947-49, an unusually favorable period. Since then, prices paid by farmers for production items, interest, taxes, and wage rates have increased about 15 percent, whereas prices received by farmers for products sold have declined about 14 percent. Cost-price relationships can be expected to continue at about current levels during the next 3 to 5 years. Nevertheless, many farmers will be able to lower their per unit costs of production, thereby reducing the cost-price squeeze so far as they are concerned.

Cost per Unit of Production

On most types of farms, cost per unit of production has increased since 1947-49 (table 1). Changes in the combination of production resources have helped to offset increases in cost rates and prices paid by farmers. But these increases in efficiency have not been sufficient to offset them completely. Dairy farmers have been more successful in keeping their per unit costs down in recent years than have the operators of most other types of farms. The fact that feed prices are lower than they were in 1947-49 is one of the reasons for this, especially in areas like the Northeast where most of the grain fed to livestock and poultry is purchased. Another reason is that land values have not increased as much in dairy areas as in areas like the Corn Belt. Also, there is considerable evidence that production efficiency increased somewhat faster on dairy farms in the last several years than it did on many other types of farms.

Importance of Cost Items

The importance of the various production cost items varies considerably by type of farm (table 2). Feed is the most important item on dairy farms in the Northeast, whereas power and machinery are most important on wheat and Corn Belt farms. Expenditures for fertilizer and lime account for 16 percent of all production expenditures on cotton farms in the Southern Piedmont and for less than 1 percent on several other types of farms. But some farmers who used little or no commercial fertilizer 10 years ago are now using large quantities of fertilizer.

Changes in Resources Used by Farmers

The relative quantities of various resources used in farm production are continually changing. The impact of technology, relative costs, and the financial position of farmers operate to bring about continuous adjustments in resource combinations.

Per unit of output, farmers are using fewer horses and mules, fewer acres of cropland, and fewer man-hours of labor than were used two decades ago. However, more motortrucks, tractors, fertilizer, and purchased feed are used per unit of output.

Table 1.- Cost per unit of production, commercial family-operated farms, by type, 1955, with comparisons 1/

- 7 -

Type of farm and location	Index numbers (1947-49=100)									
	Average									
	1937-41	1947-49	1950	1951	1952	1953	1954	1955	2/	
Dairy farms:										
Central Northeast.....	49	100	94	102	115	107	101	96		
Eastern Wisconsin.....	48	100	100	108	116	112	108	108		
Western Wisconsin.....	45	100	96	104	110	103	103	98		
Corn Belt farms:										
Hog-dairy.....	49	100	102	109	112	113	103	108		
Hog-beef raising.....	48	100	95	111	107	118	119	106		
Hog-beef fattening.....	46	100	108	127	111	109	110	112		
Cash grain.....	50	100	110	117	128	131	123	123		
Tobacco farms:										
Tobacco-livestock (Kentucky).....	43	100	109	110	112	118	112	129		
Tobacco-cotton (North Carolina).....	3/	100	108	106	119	124	128	115		
Cotton farms:										
Southern Piedmont.....	44	100	115	103	115	105	119	96		
Black Prairie, Texas.....	44	100	113	142	133	104	138	104		
High Plains, Texas (nonirrigated)...	44	100	110	125	189	356	125	135		
High Plains, Texas (irrigated).....	3/	100	119	124	125	131	113	123		
Spring wheat farms (No. Plains):										
Wheat-small grain-livestock.....	58	100	94	95	137	123	137	89		
Wheat-corn-livestock.....	53	100	111	98	155	119	123	125		
Wheat-roughage-livestock.....	78	100	106	110	162	104	125	101		
Winter wheat farms:										
Southern Plains.....	77	100	106	152	89	155	125	149		
Wheat-pea (Washington and Idaho)...	50	100	101	121	112	106	98	131		
Sheep ranches:										
Northern Plains.....	47	100	105	110	132	112	121	117		
Southwest.....	3/	100	115	147	147	143	137	124		
Cattle ranches:										
Northern Plains.....	56	100	120	119	126	114	114	120		
Intermountain region.....	44	100	123	119	128	129	123	120		
Southwest.....	3/	100	110	136	167	142	149	126		

1/ Including charges for capital and unpaid labor. 2/ Preliminary. 3/ Not available.

Table 2.- Distribution of cash farm expenditures, specified types of farms, 1955

Type of farm	:Power and: :Hired :Fertilizer: Feed : :Buildings: : :machinery: labor : and : :Live- : : and : Taxes : Other : 1/ : 2/ : lime :seed 3/: stock : fences : :		Percent		Percent		Percent		Percent		Percent	
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Dairy farms:												
Central Northeast	27	8	4	37	3	7	8	6				
Eastern Wisconsin	44	5	4	19	1	10	7	10				
Western Wisconsin	41	6	4	21	1	9	9	9				
Corn Belt farms:												
Hog-dairy	36	9	5	24	1	9	8	8				
Hog-beef raising	36	7	4	28	1	6	11	7				
Hog-beef fattening	19	5	2	18	41	5	6	4				
Cash grain	44	6	11	14	1	6	15	3				
Tobacco farms:												
Tobacco-livestock (Kentucky)	29	22	14	10	--	8	12	5				
Tobacco-cotton (North Carolina)	23	36	13	8	--		2	9				
Cotton farms:												
Southern Piedmont	36	29	16	7	1	5	2	4				
Black Prairie, Texas	48	30	2	8	--	4	3	5				
High Plains, Texas (nonirrigated) ..	66	17	--	7	1	2	5	2				
High Plains, Texas (irrigated)	56	28	2	3	--	4/ 8	2	1				
Spring wheat farms (Northern Plains):												
Wheat-small grain-livestock	66	10	1	4	1	7	9	2				
Wheat-corn-livestock	58	8	--	9	2	6	11	6				
Wheat-roughage-livestock	66	4	--	12	1	6	9	2				
Winter wheat farms:												
Southern Plains	56	6	2	13	1	6	12	4				
Wheat-pea (Washington and Idaho) ..	52	13	10	5	--	4	9	7				
Sheep ranches:												
Northern Plains	21	25	--	25	6	2	10	11				
Southwest	15	13	--	23	27	6	8	8				
Cattle ranches:												
Northern Plains	44	14	--	6	6	3	14	13				
Intermountain region	33	12	--	25	5	3	19	3				
Southwest	23	7	--	33	13	7	10	7				

1/ Including ginning, hauling, and other machine work hired. 2/ Including payments to croppers.

3/ Including cost of grazing permits. 4/ Including irrigation wells and water-distribution systems.

Substitution of one resource for another has typified agriculture in the United States during the last two decades. Tractors, trucks, and other farm machinery have been substituted for horse and mule power and for labor. As labor becomes increasingly productive in our highly industrialized economy, nonfarm wage rates go up and industry competes more strongly for farmworkers. On the other side, technology contributes to continued improvement in machinery and other nonfarm resources. The farmer soon finds that it is cheaper to buy machinery than to use hired labor in getting his work done. Other inputs, such as fertilizer, improved feeds, and the gamut of technological advances are used also. Thus, requirements for human labor are reduced both in total and per unit of output. The price of fertilizer has not increased as much as prices of other inputs, particularly since World War II. As a result, some farmers may find it more profitable to increase production by using more fertilizer than by purchasing or renting more of the limited supply of cropland.

These trends reflect the increasing interdependency of the agricultural and industrial sectors of our economy. Farmers are increasing their purchases of industry-produced goods and services.

The continuous recombining of resources and discarding of the old to incorporate the new are methods whereby farmers adapt their farm businesses to the changing world and the growing economy. In so doing, they are able to produce more, minimize the drudgery of farmwork, and improve their levels of living. Resource substitution is a compelling force in American agriculture. There is little reason to doubt that this process of substitution and adjustment will continue as the technological and economic forces that cause them continue to unfold.

FARM LABOR

Farm wage rates have averaged about 4 percent higher in 1956 than in 1955. This is the sharpest rise in farm wage rates since 1952; it compares with an average annual increase of less than 1 percent for the period 1952-55 (table 3). Farm wage rates are now about a fourth above 1947-49 and 300 percent above 1940 levels.

Farmers are paying higher rates for hired labor this year in all regions. The range is from 6 percent higher in the New England States to 2 percent higher in the Mountain States. Higher wage rates in industry and abundant opportunities for nonfarm jobs are prime factors behind the increase in farm wage rates. The new minimum industrial wage rate of \$1.00 per hour that became effective March 1, 1956, probably affected indirectly the wage rates paid by farmers.

Higher farm wage rates are expected in 1957. Competition from nonfarm employers for farm workers is expected to continue. Seasonal farmworkers, particularly, will be attracted to industrial jobs, not only by higher wages, but also by such inducements as greater continuity of employment and better working and living conditions.

Table 3.- Labor used on farms, labor productivity, wage rates, and related data, United States, 1940-56 1/

Index numbers (1947-49=100)

Year	Farm employment			Man-hours of farm work <u>3/</u>	Farm output <u>4/</u>	Farm output per man-hour	Gross farm income per man-hour	Farm wage rates <u>5/</u>
	Total	Family	Hired					
	<u>2/</u>	<u>2/</u>						
	:	:	:					
1940.....	107	104	117	120	83	69	28	30
1941.....	104	101	116	117	86	74	35	35
1942.....	103	100	112	122	96	79	46	46
1943.....	102	101	107	121	94	78	58	61
1944.....	100	100	98	120	97	81	61	74
1945.....	98	99	93	112	96	86	69	83
1946.....	101	102	96	108	98	91	81	90
1947.....	102	102	99	103	95	92	99	97
1948.....	101	101	102	100	104	104	103	103
1949.....	97	97	99	97	101	104	98	100
1950.....	91	91	91	89	100	112	108	99
1951.....	88	88	87	91	103	113	122	109
1952.....	85	85	84	89	107	120	125	117
1953.....	84	84	85	88	108	123	120	119
1954.....	83	82	84	86	108	126	119	119
1955.....	80	79	83	85	112	132	116	120
1956 <u>6/</u>	78	78	81	84	113	135	120	125

1/ Data on farm employment, wage rates, and farm income are from the Agricultural Marketing Service, United States Department of Agriculture.

2/ Includes farm operators and members of their families.

3/ Total man-hours of farmwork in terms of the time required by average adult male workers.

4/ Net calendar-year production for eventual human use.

5/ Simple average of seasonally adjusted quarterly indexes.

6/ Preliminary. Estimates of farm output and man-hours for 1956 based on October 1956 "Crop Production" report and other releases of the Agricultural Estimates Division, Agricultural Marketing Service.

Farmers in some areas have not been able to get all the help they wanted in brief periods, but the supply of labor this year has generally been sufficient to enable farmers to get their work done. The supply of experienced year-round workers continued tight and a similar situation is expected in 1957. The average number of workers employed on farms has continued to decrease. Since 1947-49, the reduction has been slightly less for hired than for family workers.

Last year more than 410,000 foreign workers from Mexico, British West Indies, and Canada were brought in at various times for seasonal farm-work. Of this number, the period of heaviest employment was late in October when about 240,000 were working on farms in this country. Greater numbers of foreign workers have been contracted so far this year than for the corresponding period last year. Many of the additional Mexican Nationals contracted in the last few years were for jobs formerly filled by workers who entered illegally. Strict control to prevent illegal entry is being maintained. Foreign workers are expected to be available next year in areas certified as having an insufficient supply of seasonal workers from domestic sources.

Hired labor is a more important item of cost on some types of farms than on others (table 4). The annual cost of hired labor in 1955 on commercial family-operated farms of average size ranged from less than \$225 a year on wheat-roughage-livestock farms in the Northern Plains to more than \$4,000 a year on irrigated cotton farms in the High Plains area of Texas.

With advances in technology and increases in farm wage rates, there has been a tendency to substitute machinery for labor on all types of farms. However, the value of machinery used in relation to total hours of labor used is still relatively low on cotton farms in the Southern Piedmont (fig. 2). Roughly half of the increase from 1940 to 1955 in the value of machinery per hour of labor is due to increases in machinery prices.

FARM POWER AND MACHINERY

Prices paid by farmers for farm machinery and motor vehicles were about 5 percent higher in mid-September than a year earlier and about a third higher than in 1947-49. They are expected to be higher in 1957 than they were for the greater part of 1956.

Changes in retail prices of farm machinery tend to follow changes in wholesale prices. Wholesale prices of farm machinery, including tractors, have risen about 26 percent since 1947-49 (table 5). They were about the same in 1945 as in 1926. From 1945 to January 1, 1951, these prices increased by about 55 percent. After 1951, wholesale prices of agricultural machinery varied but little until September 1955, when prices increased by about 4 percent. Recently, several major farm machinery companies have increased their prices, and it is expected that the increase in wholesale prices will be about the same as that of a year earlier.

Table 4.- Average cost of hired labor, specified types of commercial family-operated farms, 1955, with comparisons

Type of farm and location	Labor hired per farm 1/		Cost per farm 2/		Cost per hour	
	:		:		:	
	Hours	Hours	Dollars	Dollars	Cents	Cents
Dairy farms:						
Central Northeast.....	1,790	1,200	710	286	563	480
Eastern Wisconsin.....	750	850	520	130	374	248
Western Wisconsin.....	560	480	490	86	249	236
Corn Belt farms:						
Hog-dairy.....	1,130	870	580	268	644	534
Hog-beef raising.....	490	440	260	104	299	229
Hog-beef fattening.....	870	710	670	203	543	633
Cash grain.....	750	550	470	186	383	436
Tobacco farms:						
Tobacco-livestock (Kentucky).....	1,450	1,380	1,090	229	647	577
Tobacco-cotton (North Carolina)....	4/	4,250	3,880	4/	1,472	1,652
Cotton farms:						
Southern Piedmont.....	2,320	1,550	1,960	147	408	798
Black Prairie, Texas.....	1,780	2,360	1,640	207	1,125	1,100
High Plains, Texas (nonirrigated)..	2,040	2,580	1,210	476	2,113	801
High Plains, Texas (irrigated)....	4/	4,680	5,730	4/	4,196	4,256
Spring wheat farms (Northern Plains):						
Wheat-small grain-livestock.....	1,000	950	640	261	868	605
Wheat-corn-livestock.....	590	690	480	118	514	377
Wheat-roughage-livestock.....	430	460	230	113	421	221
Winter wheat farms:						
Southern Plains.....	810	660	330	169	509	301
Wheat-pea (Washington and Idaho)...	1,790	1,160	1,020	528	1,110	1,316
Sheep ranches:						
Northern Plains.....	2,520	3,070	3,980	490	1,900	2,973
Southwest.....	4/	3,150	2,650	4/	1,678	1,568
Cattle ranches:						
Northern Plains.....	500	780	1,220	79	423	843
Intermountain region.....	60	740	840	10	428	701
Southwest.....	4/	1,490	1,010	4/	672	536

1/ Includes cropper labor. 2/ Includes croppers' share of crops and value of perquisites furnished.

3/ Preliminary. 4/ Not available.

Table 5.- Numbers of specified machines and horses and mules on farms, January 1, and prices of agricultural machinery, gasoline, and tires, 1940-56

Index numbers (1947-49=100)											
Numbers on farms 1/						Prices					
Year	Farm tractors 2/	Motor-trucks	Grain combines	Corn pickers	Horses and mules 3/	Agricultural machinery, including tractors 4/	Gasoline 5/	Tires 5/			
1940.....	54	55	35	36	156	69	74	73			
1941.....	58	58	42	40	152	69	78	75			
1942.....	65	61	51	43	147	72	81	93			
1943.....	72	68	59	46	142	72	81	103			
1944.....	76	73	64	48	136	72	81	108			
1945.....	83	79	69	56	128	72	81	104			
1946.....	87	82	78	67	119	77	83	105			
1947.....	92	90	86	78	109	90	92	101			
1948.....	99	101	99	99	100	101	103	101			
1949.....	109	109	115	123	91	109	105	98			
1950.....	119	117	132	151	84	111	106	110			
1951.....	129	122	150	173	76	120	107	131			
1952.....	137	128	164	195	66	121	108	125			
1953.....	144	133	172	209	58	122	112	123			
1954.....	149	138	179	219	52	122	113	123			
1955.....	152	143	181	228	46	123	114	120			
1956 6/.....	156	148	185	232	43	126	7/ 117	7/ 118			

1/ The 1947-49 average for tractors (excluding garden tractors) was 2,852,000; for motortrucks, 1,888,000, for grain combines, 540,000; for cornpickers, 302,000; and for horses and mules all ages, 9,302,000.

2/ Excluding garden tractors.

3/ Based on data published in Livestock and Poultry on Farms and Ranches, January 1 (AMS).

4/ Wholesale prices of agricultural machinery, including tractors, as reported by the Bureau of Labor Statistics.

5/ Based on prices paid by farmers as reported in Agricultural Prices (AMS). The 1947-49 average for gasoline (per gallon) was \$0.254, and for tires (size 6.70x15), \$18.70.

6/ Preliminary.

7/ Average prices paid in March, June, and September.

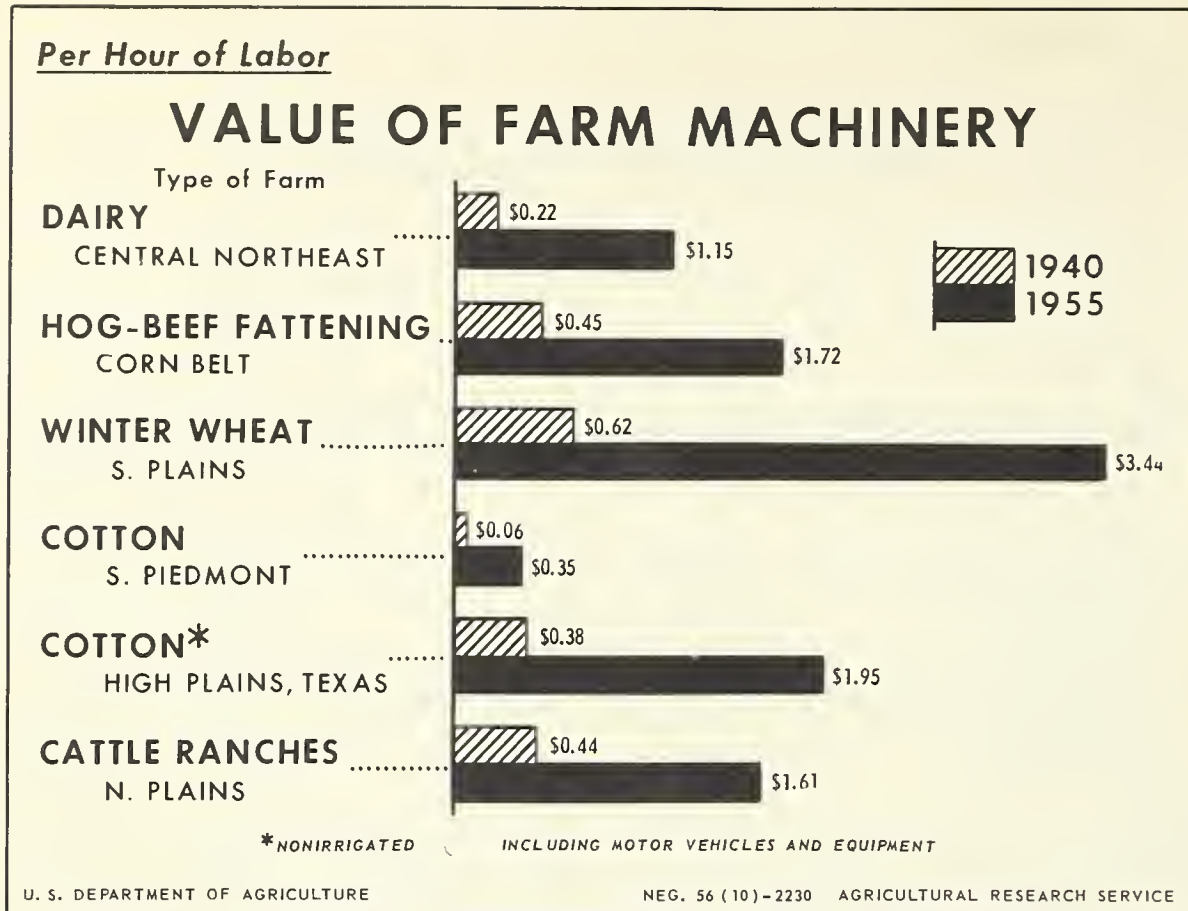


Figure 2.

In recent years, when supplies of machinery have been larger in relation to demand, dealers in many areas have tended to dispose of machines and equipment at less than the regular list prices. This is frequently done by allowing more than the market value for "trade-ins." These tendencies have been most extensively followed in depressed agricultural areas, especially drought areas, and they can be expected to continue in the year ahead.

Domestic shipments of farm machinery and equipment in the current season will likely be about 20 percent below the 1955 level. Volume of farmers' purchases of machines and equipment in 1956 may well be the lowest in a decade. This is partly because farm incomes have been low in recent years and partly because farmers in general are well supplied with machinery and equipment. The latter is especially true in areas where the soil bank program will substantially reduce the acreage of cropland to be harvested.

Farmers' purchases of machinery have been relatively large for more than 10 years, and their inventories of tractors and other machinery and equipment have steadily increased. Since 1940, numbers of tractors and motortrucks on farms have about tripled. Numbers of grain combines, cornpickers, pick-up balers, milking machines, field forage harvesters and cotton harvesters have increased percentagewise substantially more than numbers of tractors (fig. 3). Increases in numbers of tractors and

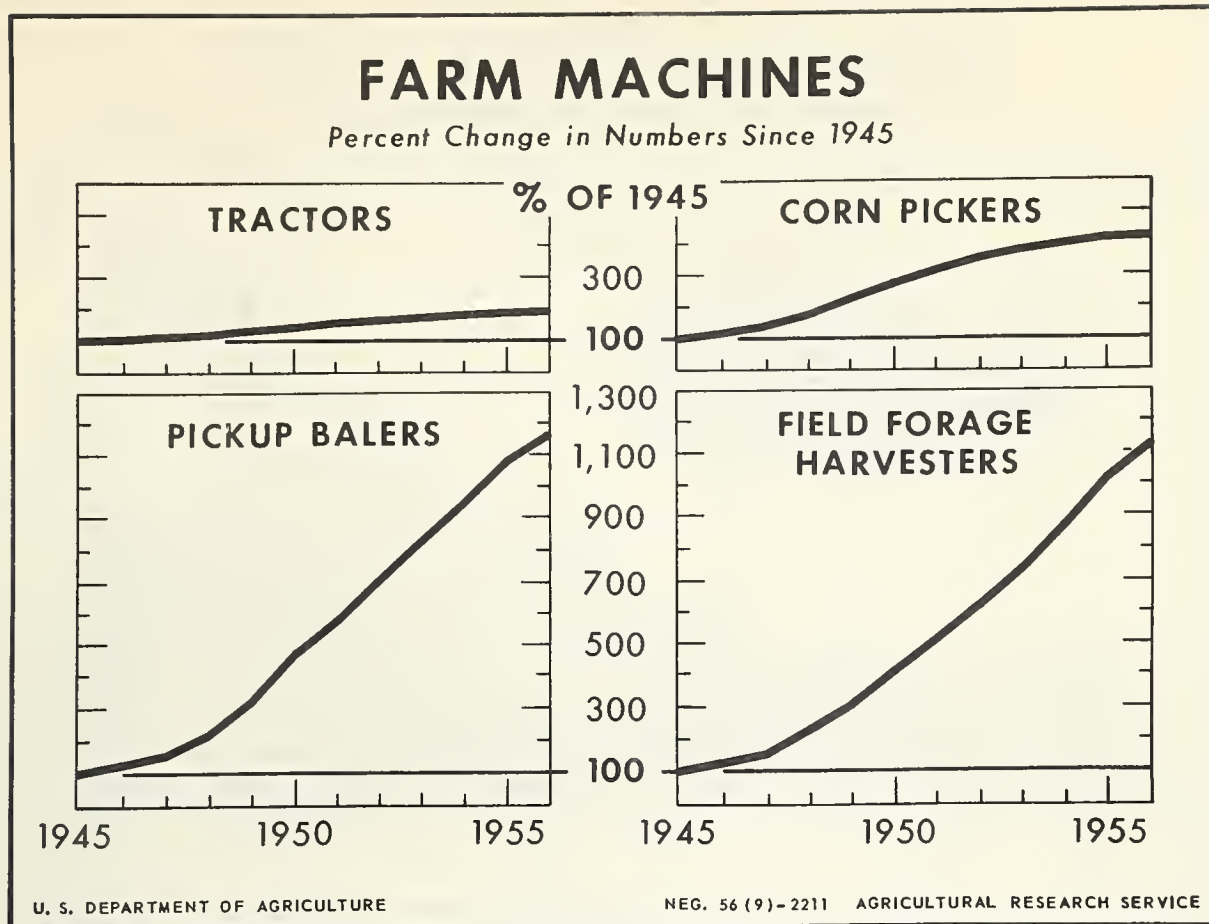


Figure 3

many other machines have been accompanied by reductions in numbers of work-animals and animal-drawn machines and equipment. Increased mechanization also has resulted in decreased manpower.

The number of horses and mules of all classes and ages now on farms is less than 15 percent of the number in 1920. In most farming areas, mechanical power has almost completely replaced horses and mules. In consequence, the annual rate of increase in numbers of tractors and principal machines on farms has slowed materially in recent years.

Most of the current purchases of tractors and power machines are made to replace worn and obsolete tractors and tractor-drawn machines. This outlet - the replacement market - will increase in importance in the years ahead (fig. 4).

Along with the reduced rate of increase of recent years in numbers of tractors and machines on farms, there has been a decided shift toward larger tractors and complementary tractor equipment. About 80 percent of the current domestic shipments of wheel tractors for farm use have belt h.p. ratings of 30 or more. Less than 25 percent of the 1947 domestic shipments were of these ratings. Farmers are adding additional acreages to their farms so they can use larger equipment economically. Expanded use of larger power equipment and custom machines can be expected to continue for some years.

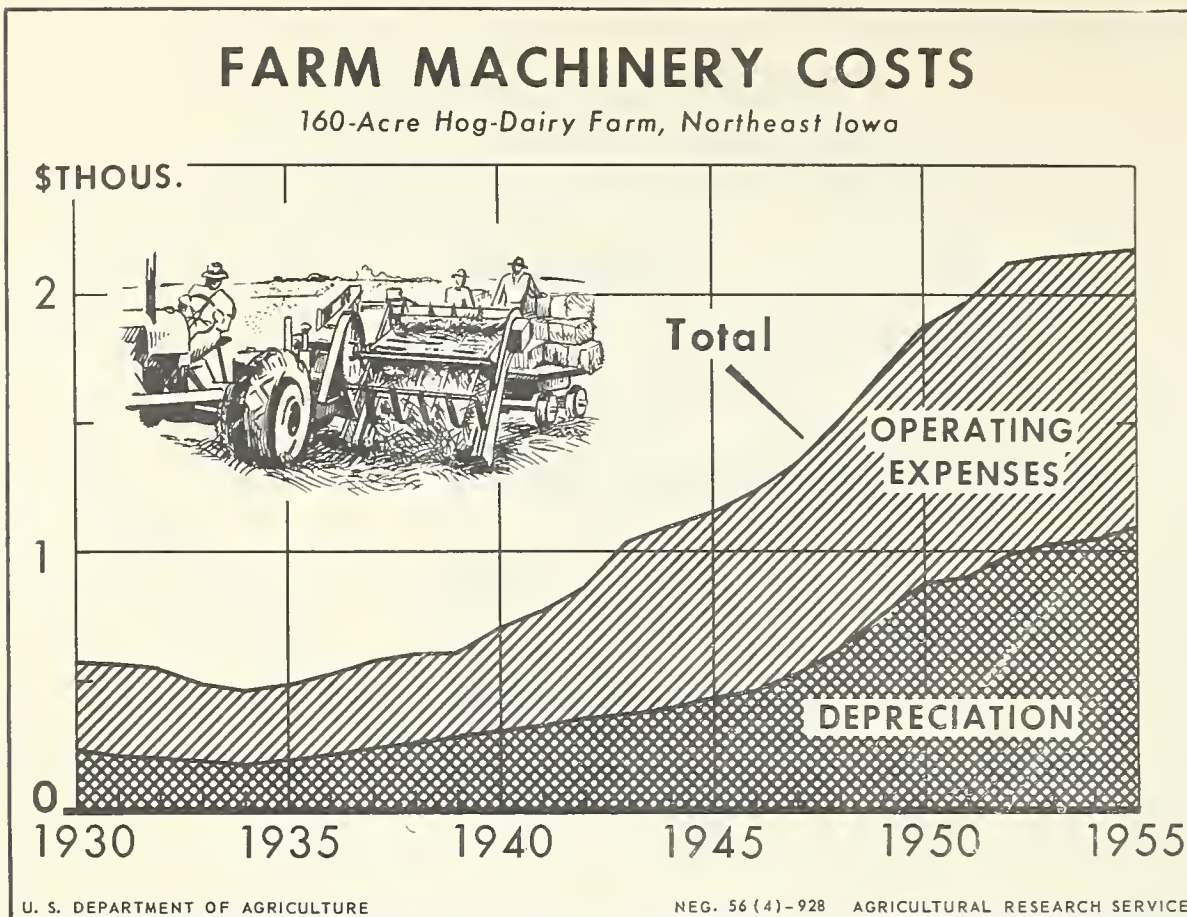


Figure 4

The cost of gasoline is an important item of farm expenditures. Annual farm consumption of motor fuel is currently estimated at about 7 billion gallons. About 90 percent of all motor fuel is gasoline. Current retail prices of gasoline at filling stations is about 3 percent above the previous high 1955 price. It is estimated that farmers use around 3 billion gallons of gasoline for off-highway farm uses. Since January 1, 1956, farmers have been able to obtain a rebate of the Federal tax of 2 cents a gallon for gasoline use for off-highway farm purposes. With the tax rebate, the cost per gallon of gasoline in 1956 was about 10 percent above the average price of 1947-49.

About 11 million motor vehicles and numerous farm machines are adapted for use with rubber tires. Prices of tires were at peak levels in 1951 but have since declined moderately. It is likely that retail prices of tires will show little change in the coming year.

FEED

The index of prices paid by farmers for feed was about 2 percent higher in mid-October than a year earlier. Prices of soybean and linseed meals were down 8 to 10 percent but prices of other high-protein feeds were about the same. Prices of feed grains, broiler mash, mixed dairy feed, and hay were up a little.

The index of prices received by farmers for feed grains and hay in mid-October was about $6\frac{1}{2}$ percent above a year earlier. Corn was up 4 percent; oats, 17 percent; barley, 8 percent; sorghum grains, 27 percent; and hay 5 percent. Prices of the small grains have readjusted somewhat from the low levels following the large 1955 crops. The price of hay was considerably higher in States where drought was severe.

Feed grain prices may average a little higher in the 1956-57 season (October-September) than in the 1955-56 season, but prices of high protein feeds are expected to average lower. Total supplies of feed concentrates are about the same, although production of feed grains in 1956 was about 4 percent less than in 1955 (table 6). The supply of oilseed meals is expected to be about 8 percent above the previous high reported for the 1955-56 season. The supply of other byproduct feeds is expected to be about the same as a year ago. The supply of feed grains is larger this fall than a year earlier in the North Atlantic, South Atlantic, and East North Central regions, about the same in the West North Central region, and much smaller in the South Central and Western regions where supplies in 1955 were unusually large.

The number of grain-consuming animal units for the 1956-57 season is expected to be down about 2 percent from that of a year earlier. The decrease will be principally in hogs, as animal units of poultry and beef cattle may be as large or larger. The supply of feed concentrates per animal unit is the largest on record.

The number of roughage-consuming livestock for 1956-57 is expected to be about the same as for 1955-56. The supply of hay is larger in all regions, except the South Central and West North Central regions. On November 1, severe drought existed in an area extending from Iowa and Nebraska south to the Gulf of Mexico and west to Arizona and Utah. Extreme drought conditions prevailed in most of Kansas, Missouri, Oklahoma, and Texas.

Returns per \$1.00 of feed cost were lower on October 15 than a year earlier for all poultry enterprises, chiefly because of lower prices of poultry and eggs (table 7). Returns were lower from butterfat production and beef raising because of higher feed costs. Hog raising was the only livestock enterprise that showed larger returns per \$1.00 of feed on October 15, 1956, than a year previous. Compared with averages for the 15-year period, 1937-51, returns per \$1.00 of feed cost were lower on October 15 for all livestock enterprises. Returns from broilers, eggs, and butterfat were down 25 percent or more while returns from milk and hogs were down 6 and 9 percent respectively.

Table 6.- Supply and utilization of feed concentrates, and livestock fed, United States, 1937-56 1/

Year beginning October	Supply			Utilization			Stocks			Per grain-consuming animal unit		
	Stocks:	of feed:	grains:	Produc- tion of feed grains:	Other feed concentrates:	Total supply	For seed, human food, industry, and export	Concen- trates fed to live- stock	of year 3/	Grain- consum- ing animal units	Pro- duc- tion of concentrates:	Supply of concentrates:
	Million tons	Million tons	Million tons	Million tons	Million tons	Million tons	Million tons	Million tons	Million tons	units	Tons	Tons
Av. 1937-41	16.9	99.3	19.9	136.1	12.1	104.9	19.9	153.1	0.65	0.89	0.69	0.69
Av. 1942-46	14.7	117.3	29.4	161.4	14.8	133.0	13.5	176.9	.66	.91	.75	.75
1948.....	7.8	135.4	23.6	166.8	17.6	119.8	30.4	158.6	.85	1.05	.76	.76
1949.....	30.4	120.0	24.9	175.3	17.2	126.4	30.5	163.8	.73	1.07	.77	.77
1950.....	30.5	121.8	26.5	178.8	20.3	130.3	28.6	168.1	.72	1.06	.78	.78
1951.....	28.6	113.1	27.5	168.9	17.1	132.2	20.1	167.3	.68	1.01	.79	.79
1952.....	20.1	119.7	27.3	167.1	17.0	121.8	27.0	158.8	.75	1.05	.77	.77
1953.....	27.0	117.5	28.0	172.5	16.2	125.8	31.7	156.7	.75	1.10	.80	.80
1954.....	31.7	123.9	26.6	182.2	18.7	126.4	39.1	161.5	.77	1.13	.78	.78
1955.....	39.1	131.1	26.4	196.9	20.6	131.7	43.2	164.9	.80	1.19	.80	.80
1956 4/.....	43.2	126.2	27.3	196.8	20.0	130.0	47.0	162.0	.78	1.21	.80	.80

1/ From Feed Statistics, page 2, March 1955, and Feed Situation, November 1956, table 2, AMS.

2/ Includes byproduct feeds, imported grains, and domestic wheat and rye fed.

3/ Stocks do not necessarily equal supply less feed and other utilization because of a difference in the crop year for different feed grains.

4/ Preliminary estimates based on indications in October 1956.

Table 7.- Returns per \$1.00 of feed cost of livestock enterprises, United States, October 15, 1956, with comparisons 1/

Livestock enterprise or product	: 1937-51 : average : Oct.	: Oct. 15, : 1954	: Oct. 15, : 1955	: Apr. 15, : 1956	: Oct. 15, : 1956
	: <u>Dollars</u>	: <u>Dollars</u>	: <u>Dollars</u>	: <u>Dollars</u>	: <u>Dollars</u>
Eggs.....	2.09	1.22	1.78	1.57	1.54
Broilers.....	1.62	1.24	1.51	1.39	1.18
Turkeys.....	1.85	1.50	1.91	1.85	1.54
Milk.....	2.25	1.93	2.12	1.83	2.11
Butterfat.....	1.75	1.28	1.41	1.36	1.32
Hogs.....	1.75	1.56	1.54	1.34	1.60
Sheep raising....	1.68	1.28	1.28	1.28	1.28
Beef raising.....	1.82	1.41	1.59	1.46	1.53
			<u>1954-55</u>		<u>1955-56</u>
Cattle feeding....	<u>2/1.25</u>		1.19		1.15
			Index numbers (1937-51=100)		
Eggs.....	100	58	85	106	74
Broilers.....	100	77	93	85	73
Turkeys.....	100	86	103	106	83
Milk.....	100	86	94	100	94
Butterfat.....	100	73	81	91	75
Hogs.....	100	89	88	85	91
Sheep raising....	100	76	76	80	76
Beef raising.....	100	77	88	83	84
			<u>1954-55</u>		<u>1955-56</u>
Cattle feeding....	<u>2/100</u>		95		92

1/ Quantities of feed used in calculating the cost of feed follow: Per dozen eggs - 7 lbs. poultry ration; per lb. of broiler - $4\frac{1}{2}$ lbs. chick starter, 1935-44; 4 lbs. chick starter, 1945-49; $3\frac{1}{2}$ lbs. chick starter, 1950-52; $3\frac{1}{4}$ lbs. broiler mash, 1953-54; 3 lbs. broiler mash, 1955-56; per lb. of turkey - $5\frac{1}{2}$ lbs. poultry ration before 1950; $4\text{-}3\frac{3}{4}$ lbs. 1950-56; per 100 lbs. hogs - $7\frac{1}{2}$ bu. corn plus 20 lbs. soybean meal; per 100 lbs. milk or 4 lbs. butterfat - 28 lbs. concentrates plus 110 lbs. hay, 1937-41; 31 lbs. concentrates plus 110 lbs. hay, 1942-56; per 100 lbs. beef cattle - 3 bu. corn plus 600 lbs. hay; per 100 lbs. sheep and lambs - 2 bu. corn plus 1,500 lbs. hay. Value of hay in Iowa and Minnesota was used for butterfat. Assumed 19 lbs. wool produced for each 100 lbs. sheep and lamb produced since 1951 and 20 lbs. before 1952. The quantity of hay for milk cows, beef cattle, and sheep includes an allowance for silage and pasture. Feed nutrients from pasture assumed to cost a fourth as much as nutrients from hay. Cattle feeding returns are based on table 2, Livestock and Meat Situation, AMS, August 17, 1956, which is based on Corn Belt experience.

2/ 1920-52 average.

Returns per \$1.00 of feed cost from cattle feeding in the 1955-56 season were 8 percent below the longtime average and a little lower than in the preceding season. The average price paid by farmers on October 15, 1956, for feeders and stockers was about 5 percent lower than on the same date in 1955. Returns for the season, however, will depend on the price of fat cattle next spring and summer.

SEED

The index of prices paid by farmers for seed was about 4 percent lower in mid-September than a year earlier and about 10 percent below the 1947-49 average. However, retail prices of seed are about 5 percent higher this fall than they were last spring. Of the 17 grass, legume, and grain seeds for which spring and fall prices are available, only two - common ryegrass and Ladino clover - were lower in September than they were in May. Prices of timothy and smooth brome advanced as much as 44 percent, while prices of Kentucky bluegrass, orchard grass, alsike clover, and alfalfa rose 8 to 17 percent from May to September.

Compared with 1949-52, September prices were 55 percent lower for Ladino clover, 48 percent lower for improved varieties of alfalfa, 15 percent lower for alsike clover, 5 percent lower for red clover, and 40 percent higher for crested wheatgrass. Prices of seed grains ranged from about the same for winter wheat to 14 percent lower for winter barley.

It is expected that seed prices will average somewhat higher in 1957 than in 1956. The general trend in seed prices has been upward since last spring. The demand for some grass and legume seeds is expected to be higher, partly because participation in the soil bank is expected to stimulate their use. Supplies are lower than they were a year ago, mainly because production in 1956 was substantially reduced by drought. However, except for grasses suitable for the Great Plains, supplies are expected to be generally adequate in 1957, with prices averaging somewhat below the 1947-49 level.

FERTILIZER

Average prices paid by farmers for fertilizer during 1956 remained at about the 1955 level. This level was about 6 percent above prices paid in 1947-49, but somewhat lower than the prices paid in 1951, 1952, or 1953. Plant nutrient content has continued to rise so that the real cost of elements responsible for increases in yields has declined more than is indicated above. Annual consumption of fertilizer in terms of gross weight has declined slightly in the last 2 years, but the quantity of principal nutrients consumed has continued to rise.

Available supplies reached an all-time high level this year. Wholesale prices reported for most nitrogenous fertilizers were lower than for the previous year. Some seasonal changes in prices of these materials occurred. They reflected an effort to encourage summer and fall movement,

thus reducing the cost of storage for the manufacturer and relieving congestion in storage and transit. Early in the season, the wholesale price of anhydrous ammonia was \$85 a ton. This was reduced to \$72 for August but increased to \$75 for October. This price is expected to continue until about the first of the year, at which time some increase can be expected. A reduction of \$10 a ton was announced for sulphate of ammonia in May. Lower prices for imported Chilean nitrate of soda were announced in October.

Consumption of plant nutrients is nearly 70 percent above the 1947-49 average but the rise has been much greater for nitrogen (N) and potash (K_2O) than for phosphate (P_2O_5). For 1955, the index of nitrogen consumption was 226, for potash 194, and for phosphate 125, with 1947-49=100. This reflects recognition of the higher yield response to nitrogen and potash and the differences in prices of the 3 principal nutrients. Although nitrogen costs more per pound than either of the other nutrients, response to higher applications has generally been greater, and the price per pound of nitrogen is now less relative to the price of the other nutrients than formerly. This changed relationship has been brought about by the increased use of high analysis nitrogen solutions for both direct application and for use in making mixed fertilizers, and by the expanded use of anhydrous ammonia. New developments in fertilizer technology have reduced the cost of these materials (fig. 5). The price of potash per pound has generally been materially lower than that of other nutrients because its source material is high in K_2O content. The favorable cost position of fertilizers relative

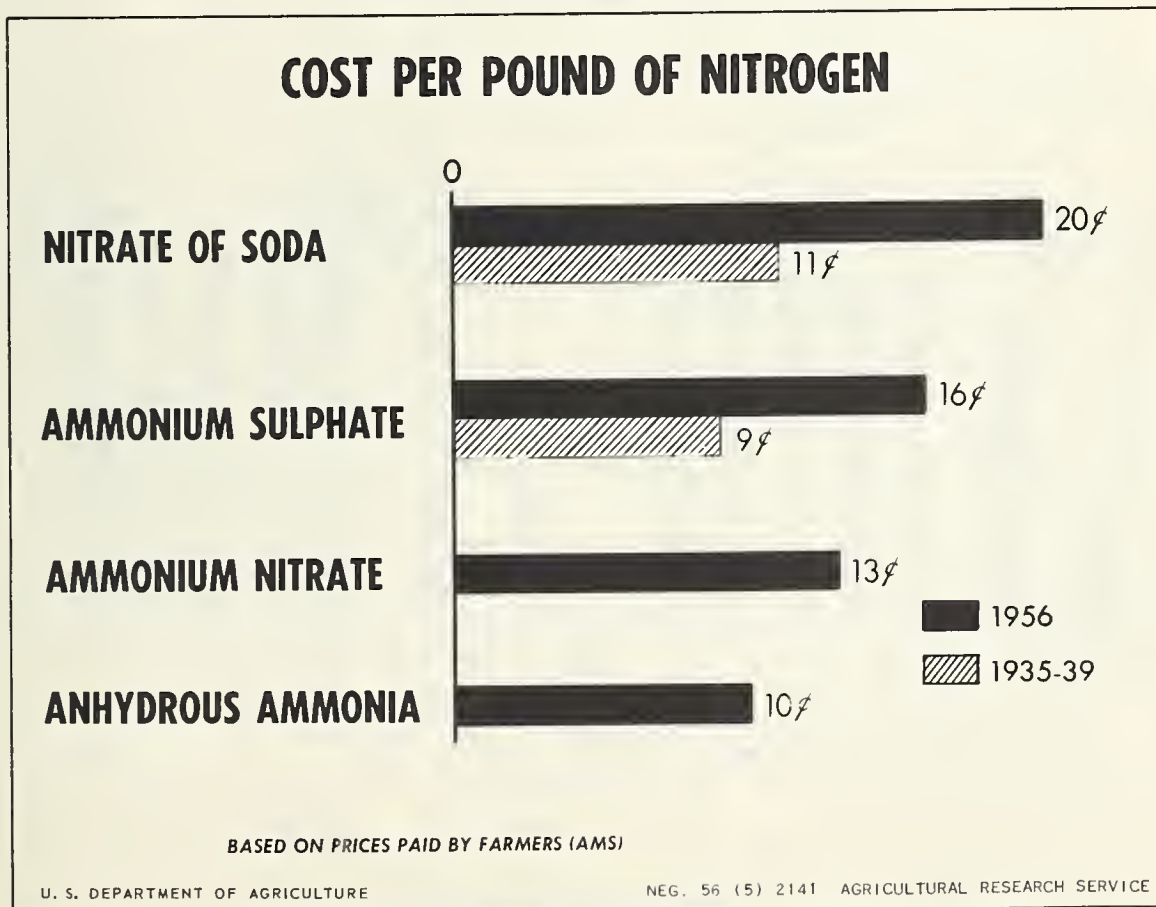


Figure 5

to that of other production costs is expected to continue for the next few years. There are some indications that fertilizer may compete with other inputs for the farmers' available operating funds even more strongly than at present.

BUILDING MATERIALS

Prices of building and fencing materials used by farmers were nearly 4 percent higher in mid-September than a year earlier and more than a fourth higher than in 1947-49. They have increased about 162 percent since 1935-39 in contrast to an increase of 118 percent in the prices received by farmers for products sold.

Cement and composition roofing are both more than 5 percent above year-ago levels while prices of framing lumber are up about 2 percent. Prices of most items of building and fencing materials have advanced in recent months.

The total cost of materials for a typical poultryhouse has risen 2 percent in the last year and 23 percent since 1947-49. The cost of fencing materials has increased by 5 percent since September 1955 and by 35 percent since 1947-49 (fig. 6).

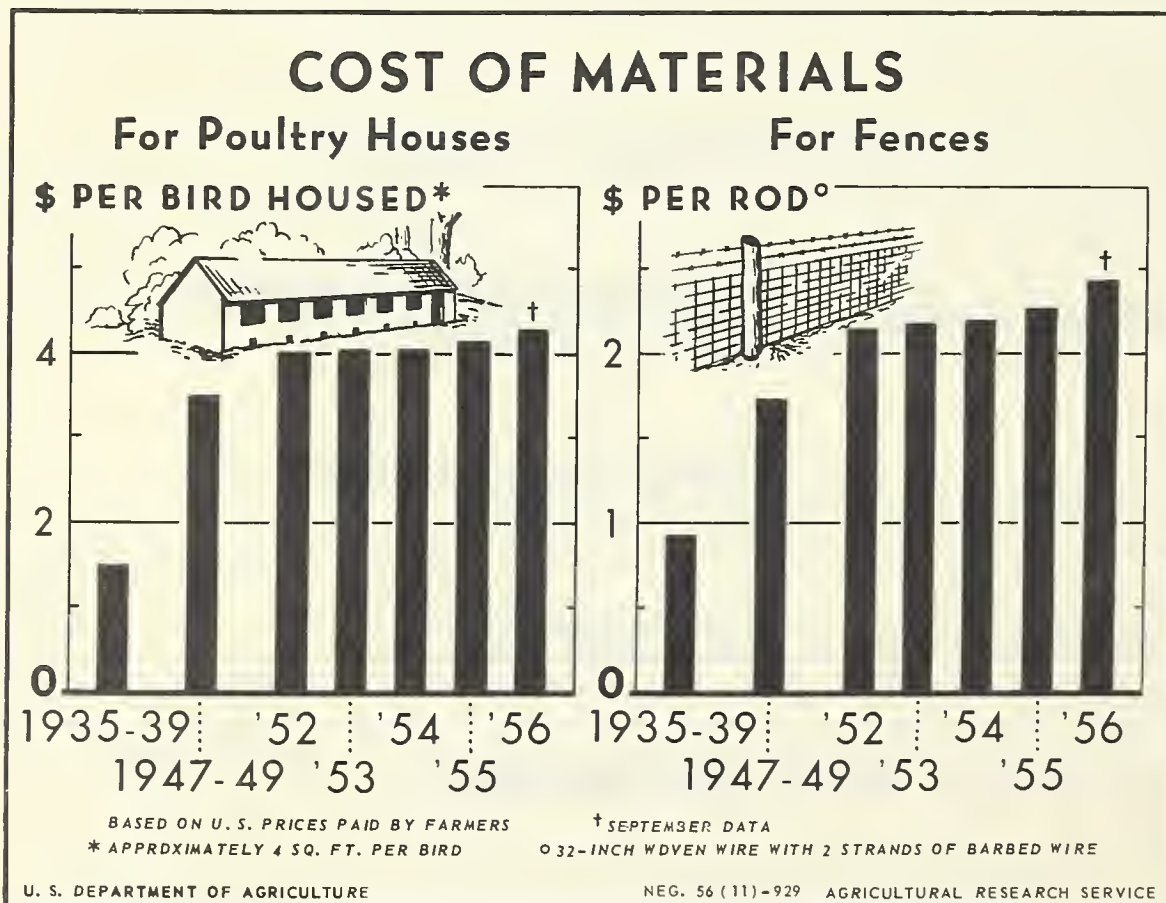


Figure 6

FARM SUPPLIES

Farm supply prices have risen an average of 4 percent in the last 12 months. They are now 17 percent higher than in 1947-49 and 97 percent higher than in 1935-39. This category includes pesticides, baler twine and wire, binder twine, bale ties, containers, small tools, and miscellaneous items.

Pesticides

Prices paid by farmers for pesticides were slightly lower in 1956 than they were a year earlier. However, farmers apparently used about 12 percent more pesticides this year than in 1955. As a result, their expenditures for such materials are appreciably higher. Preliminary reports indicate that the use of calcium arsenate, DDT, and BHC (benzenehexachloride) and a number of other materials increased considerably from 1955 to 1956.

Since 1950, prices of BHC and DDT have declined about two-thirds and one-half, respectively, while prices of copper sulfate have risen about 60 percent. These price changes have had differing effects on farm costs. For example, cotton farmers, who use large quantities of BHC and relatively little copper sulfate benefited by these price changes but potato growers in areas where large quantities of copper sulfate are used did not benefit.

FARM REAL ESTATE

Value per Acre

The average value of farm real estate per acre continued to advance during the first half of 1956. Increases of from 2 to 4 percent were common during the 4 months ended July 1 throughout the eastern half of the country as well as along the Pacific coast. Values were largely unchanged in the central Corn Belt, Northern Plains, and central and southern portions of the Mountain region. The national increase, which amounted to about 1 percent, raised farm real estate values to a new high. At the same time, new high levels were recorded in 29 States scattered throughout the country.

At midyear, farm real estate values were higher than a year earlier in all farm production regions, except the Northern Plains (table 8). Nationally, the increase was 3 percent. Largest increases (8 to 9 percent) were reported for the Southeast and the Delta States. Advances of 5 to 6 percent were indicated for the Northeast, Lake States, and Pacific regions. Changes by States ranged from a 15 percent increase in Florida to a 5 percent decrease in Colorado. Declines were registered in only 2 other States - Nebraska and Kentucky.

Thus, land values continued to rise from late 1953 through mid-1956, despite the general decline in farm income during this period. Realized

Table 8.- Farm real estate: Index numbers of average value per acre, by farm production regions, July 1956 with comparisons

Farm production region	March 1				July 1		Change
							July 1955
	1953	1954	1955	1956	1955	1956	to July 1956
	Index numbers (1947-49=100)						Percent
Northeast	122	121	123	130	125	131	+5
Corn Belt	134	132	139	144	142	146	+3
Lake States	127	122	127	135	130	136	+5
Appalachian	129	123	126	130	128	133	+4
Southeast	128	129	132	141	133	145	+9
Delta States	131	129	132	140	133	144	+8
Southern Plains	133	132	137	139	140	142	+1
Northern Plains	135	129	133	135	136	135	-1
Mountain	136	134	136	138	137	139	+1
Pacific	127	124	130	137	131	139	+6
United States	132	128	133	138	136	140	+3

net farm income for 1955 was 18 percent below 1953, although some increase over the 1955 level is expected for this year. Land values in mid-1956 were 9 percent above the level of early 1954. During the last 40 years there has been no period of similar length in which land values increased while farm income was declining.

Some of the forces responsible for this upward trend in farm real estate values include the attitudes of people about farmland as a long-term investment, the costly improvements that have been made in recent years such as adding lime and providing facilities for drainage and irrigation, the demand from farm operators for additional land to utilize more fully their time and machinery, the strong demand for part-time farms and rural residences, the dispersal of industry, the favorable outlook for timber production, and the favorable outlook for the general economy.

The enlargement of farms is reflected in census data which show that between 1950 and 1954 the average size of farms increased by 12 percent, while the number of farms declined by 11 percent. The largest proportion of farmers who left farming in this period did so voluntarily, and without financial loss. This was made possible by favorable nonfarm employment opportunities which arose because of the dispersal of industry and high levels of employment and was assisted by the demand for land to enlarge farm operating units. The farm-enlargement process has continued since 1954, according to sales data collected each March. The proportion of tracts of land sold to become part of another farm after sale increased by 14 percent from 1954 to 1956 and represented a third of all sales of farmland in the year ended March 1, 1956.

An October 1955 survey, which was designed to determine the factors that are helping to sustain land values, revealed that many people consider farmland to be a safe long-term investment. They believe that a growing population on a limited area of land will result in steadily rising land values as the need for food and space continues to expand. Many may not realize fully, however, that much of our increased food requirements 3 to 5 years hence can be met without much, if any, increase in annual farm output. Although farm output may need to be increased by a fourth in the next 20 years, the main problem may well be one of making needed shifts in production rather than of attaining the desired general level of output.

Another attitude reflected in the survey was that many operators of small farms would find it difficult to stay in business in the present highly competitive situation unless they can expand their acreages.

Value per Farm

The average value of real estate per farm varies widely by States - from less than \$10,000 to \$40,000 and upward (fig. 7). Differences in average size of farms as well as in value per acre are reflected in these figures. The national average of about \$21,500 per farm in 1956 compares with \$5,500 in 1940. Thus the average farm without livestock and equipment costs nearly 4 times as much now as it did in 1940.

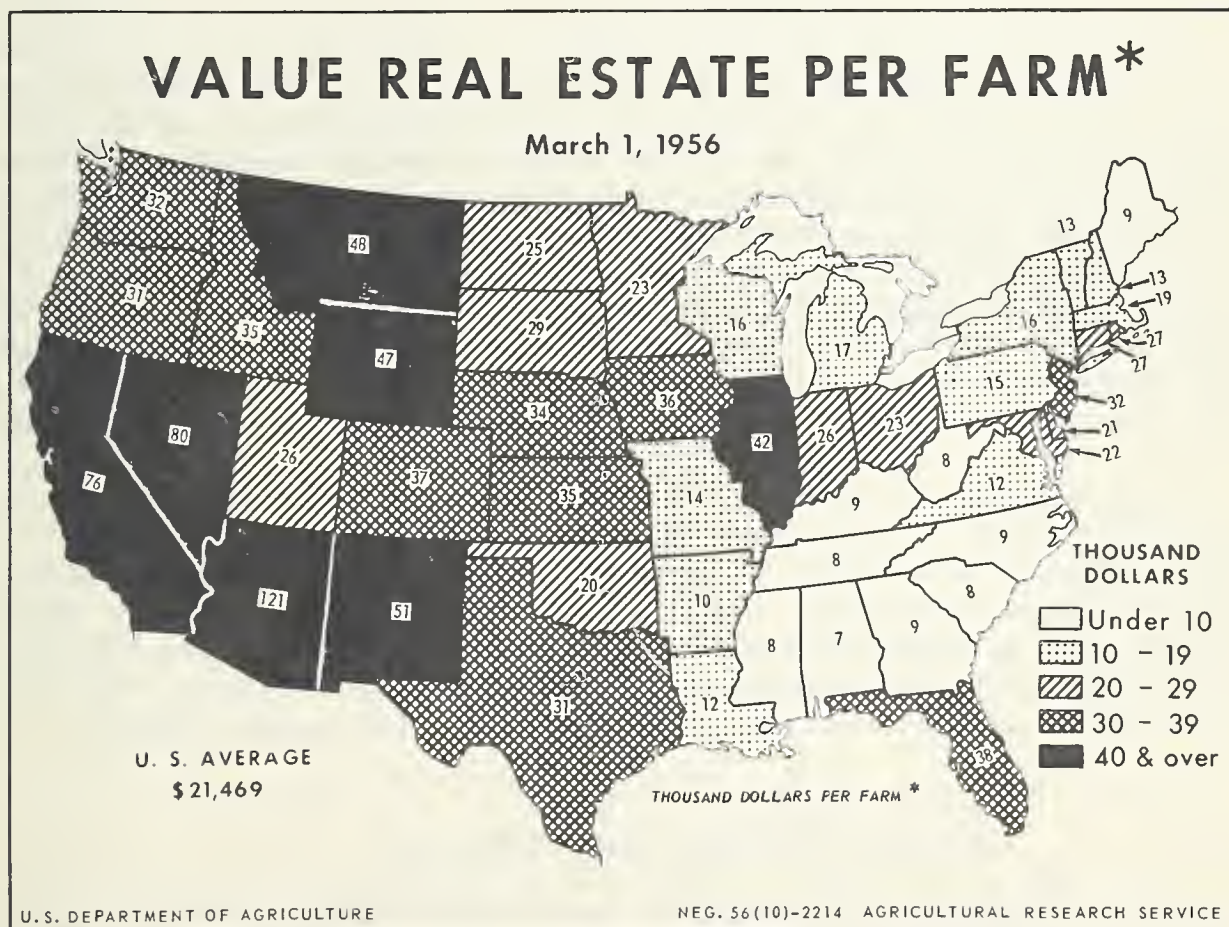


Figure 7

INTEREST, TAXES, AND INSURANCE

Farm-Mortgage Interest

Total farm-mortgage interest payable in 1956 is estimated at \$448 million, about 9 percent above the \$410 million that was payable in 1955. The increase in interest charges is due to an increase in outstanding farm-mortgage debt and to higher interest rates on new farm-mortgage loans.

Interest rates on new farm mortgage loans are now substantially above a year ago. This year 7 of the 12 Federal land banks increased rates by one-half of a percentage point. As a result, 3 land banks now charge 5.0 percent, 5 charge 4.5 percent, and only 4 continue the 4.0 percent rate. The rise in the land-bank rates on farm mortgages reflects higher yields on Consolidated Federal Farm Loan bonds. Representative issues of these bonds yielded 3.75 percent in September 1956 as compared with 3.00 percent a year earlier.

Farm-mortgage (real estate) debt is continuing to increase in 1956. In the first half of the year, the number of farm mortgages recorded was 8 percent less than in the first half of 1955, but the average size was up 11 percent, and the total amount recorded was up 2 percent. Total farm-mortgage debt may reach \$9.8 billion by the end of the year, which compares with \$9.0 billion at the beginning of 1956 and \$5.6 billion on January 1, 1950.

New farm-mortgage loans made by life insurance companies are reported to carry rates that are one-half of a percentage point or more above last year's rates. Basic rates of the major companies in this field are reported generally at 5.0 percent in the fourth quarter of 1956. The increased rates of insurance companies and other private lenders reflect higher yields on alternative investments. For example, in September 1956, Aaa corporate bonds yielded 3.56 percent as compared with 3.13 percent a year earlier, and the average rate on new issues of U. S. Government 3-month bills in September 1956 was 2.850 percent, which compares with 2.086 percent in September 1955.

Looking ahead, it appears that farm-mortgage debt and interest charges may continue to rise for several years. An important factor is the increasing capital investment in farming which requires a net increase in long-term mortgage financing. The cost and terms of farm-mortgage loans will reflect the general interest-rate pattern. Changes in the yields on Government and corporate securities and other alternative investments will affect the cost and availability of funds for farm-mortgage lending.

Interest on Non-Real-Estate Debt

Interest payments by farmers on their non-real-estate loans will probably be 12 to 15 percent greater in 1956 than in 1955. For the year 1956, the amount of non-real-estate debt on which farmers pay interest will

average about 6 percent above the amount in 1955, and the rates of interest paid on such loans appear to have risen from one-fourth to one-half of a percentage point per annum.

The increase in interest rates charged farmers on non-real-estate loans is a phase of the tighter situation that has prevailed in all money markets during 1956. The average cost (including commissions to dealers) of all Federal Intermediate Credit Bank debentures issued during fiscal 1956 was 3.08 percent per annum, compared with 1.69 percent for those issued during fiscal 1955. The cost was still higher (3.85 percent) for the latest issue of such debentures, which were dated and delivered November 1, 1956. These increases in the cost of funds have made it necessary for the Federal Intermediate Credit banks to increase their rates on loans discounted for the production credit associations and other rediscounting institutions, and the latter, in turn, are finding it necessary to increase the interest rates that they charge farmers for loans. Interest rates charged by country banks are not connected as closely to rates in the central money markets as are those charged by production credit associations but it is probable that they also have risen somewhat during the last year.

At mid-1956, the non-real-estate loans to farmers held by reporting lending agencies (excluding loans of the Commodity Credit Corporation) were about 4 percent greater than a year earlier. The largest increase for the year (11.7 percent) occurred in the Pacific region. Such loans decreased about 3 percent in the Southeast but they increased in all other regions by percentages that ranged from 1.7 percent in the Northern Plains to 6.9 percent in the Mountain States.

Indications are that the volume of non-real-estate loans to farmers will be little, if any, greater in 1957 than in 1956. Interest rates for short-term securities in the central money markets are at the highest level in about a quarter of a century. However, the rates charged farmers on non-real-estate loans do not yet reflect all of the increase that may be expected if rates in the central money markets remain at present levels. For this reason, the interest paid by farmers on non-real-estate loans may increase again in 1957, even though the amount of such loans fails to increase.

Property Taxes

Total taxes levied on farm real and personal property in the United States in 1956, payable largely in 1957, are expected to be about \$1,204 million, or 5 percent above a year earlier.

Farm real estate taxes estimated to be paid in 1956 total \$927 million. Payments in 1957 are expected to be about \$979 million. The amount paid in 1956 was about 31 percent greater than in 1950 and more than double the payments of 1945. It is anticipated that payments in 1957 will be about 39 percent greater than in 1950.

Taxes paid per acre on farm real estate in 1956 average \$0.87. Based on the average for the period 1910-14, the index of taxes paid per acre was 422 in 1956. When compared with average payments for the period 1947-49, the index was 156. For the year 1957, the indexes will probably be about 445 and 165, respectively.

For 1956, taxes paid on farm personal property will amount to \$219 million, up approximately \$2.5 million from 1955. In 1957, they probably will increase about 3 percent. It is expected that these levies will increase to about \$225 million in 1957. These 1957 payments will be some 80 percent higher than the average of 1947-49.

Generally, taxes paid in 1957 will be based on assessments as of January 1, 1956. Although data are not yet available, assessed values per head of livestock on that date are expected to remain virtually unchanged from a year earlier. Total valuations probably will be slightly higher because of the increase in livestock numbers during 1955. As a result, it is anticipated that the taxes paid on personal property will increase in proportion to changes in the tax rate.

In general, the cause of the increase in the tax levies has been the increased costs of local governmental services, especially for education and highways.

On a typical 160-acre hog-dairy farm in the Corn Belt, taxes payable on farm real estate were estimated to be \$367 in 1955 and \$380 in 1956. It is expected that these taxes will increase to \$405 in 1957. Personal property tax payments amounted to \$108 on such farms in both 1955 and 1956. An increase to about \$113 is expected in 1957.

Insurance

Expenditures by farmers for property insurance in 1956 will probably be higher than in any previous year. The insurance carried by farm mutual fire insurance companies increased by 6 percent in 1954, and 5 percent in 1955. Farmers who renewed their policies in 1956 will generally increase the amount of their coverage because many have been underinsured. The total cost (losses plus operating expenses) for this insurance was 24.4 cents for \$100 insurance in 1954 and 25.4 cents in 1955. The increased assessments paid by farmers to these companies have been due primarily to the increase in the amount of insurance carried but a part of the increase resulted from the addition of coverage against windstorm losses.

Indemnities paid to farmers during 1956 by the Federal Crop Insurance Corporation are again expected to exceed the premiums collected. The chief cause of loss was extreme drought in parts of the Great Plains and in the western Corn Belt.

Farmers bought a record amount of insurance against hail damage to growing crops in 1956 from private companies and 3 State hail departments. Because of widespread damage, payments to farmers for crop losses will nearly equal the total cost of premiums. The net cost to farmers for this insurance (premiums minus loss payments) in 1957 will probably be above average because of the large volume and some increases in premium rates.

COSTS AND RETURNS ON 4 SELECTED TYPES OF FARMS IN 1956

Realized net income for all farm operators as a group in the United States is slightly higher in 1956 than in 1955. In some areas, however, where drought, other crop conditions, and prices were relatively unfavorable in 1956, incomes are lower.

A summary of changes in costs and returns on 4 selected types of farms in widely separated areas is shown in table 9. These 4 types of farms are not intended to represent a cross section of all farms in the country. But they do illustrate the varying effects of changes in prices and weather on net incomes of important groups of farmers. Of the types of farms analyzed, Central Northeast dairy and Corn Belt hog-dairy farms will have about the same incomes in 1956 as in 1955. Southern Piedmont cotton farmers, and Southern Plains winter wheat farmers will have lower incomes. The prospective reduction in income on these cotton and wheat farms results from reduced crop yields and increases in prices paid relative to prices received.

Dairy Farms, Central Northeast

Preliminary estimates indicate that net farm incomes in 1956 on Northeastern dairy farms will average about \$4,400, or approximately the same as in 1955. However, if milk production on these farms holds up as well this fall as it did a year ago, net incomes may exceed those in 1955. Soil bank payments will be negligible on these farms in 1956.

Net farm incomes on these farms are expected to average about 13 percent higher in 1956 than in 1947-49 despite less favorable prices this year. Net production per farm is now about a third higher than in 1947-49. This increase stems from increased production per cow as well as from farm consolidations resulting in more cows and more acres per farm.

Hog-Dairy Farms, Corn Belt

Net farm incomes on hog-dairy farms in the Corn Belt are expected to average about \$4,300 in 1956, or 3 percent more than in 1955. Included in this figure are soil bank payments tentatively estimated to be \$60 per farm. The sharp increase in hog prices in the latter half of the year occurred too late to offset the low prices earlier in the year so that the average price received for hogs will be about 5 percent below the 1955 average. The lower price of hogs coupled with lower production resulted in a decline in gross income from hogs of approximately 7 percent. However, increased emphasis on dairying on these farms, together with slightly higher prices for butterfat in 1956, will result in an increase in gross income from this source of nearly 10 percent. This probably will be sufficient to bring about a slight increase in net farm income on these farms.

Net farm incomes in 1956 on hog-dairy farms are expected to be about 23 percent below the 1947-49 average, despite an increase of 23 percent in net farm production. Preliminary estimates indicate that prices paid for goods and services used in production in 1956 will average about 15 percent

Table 9.- Prospective costs and returns, selected types of farms, 1956
with comparisons

Type of farm	Unit	Average: 1947-49	Percentage of	
			1947-49	
			1955	1956
				1/
Dairy farms, Central Northeast:				
Gross farm income	Dollar	8,822	115	116
Operating expense	do.	4,930	115	119
Net farm income	do.	3,892	114	113
Cows, 2 years and over	Number	21.9	116	124
Prices paid	Index	100	107	109
Prices received	do.	100	91	93
Net farm production	do.	100	134	132
Hog-dairy farms, Corn Belt:				
Gross farm income	Dollar	10,191	99	100
Operating expense	do.	4,552	130	129
Net farm income	do.	5,639	74	77
Pork produced	100 pounds	208.2	122	115
Prices paid	Index	100	113	115
Prices received	do.	100	77	76
Net farm production	do.	100	122	123
Cotton farms, Southern Piedmont:				
Gross farm income	Dollar	3,581	143	112
Operating expense	do.	2,016	144	125
Net farm income	do.	1,565	143	94
Cotton	Acre	18.5	95	91
Other crops	do.	42.5	100	99
Prices paid	Index	100	118	111
Prices received	do.	100	102	97
Net farm production	do.	100	145	118
Winter wheat farms, Southern Plains:				
Gross farm income	Dollar	14,186	72	68
Operating expense	do.	4,169	118	116
Net farm income	do.	10,017	53	48
Wheat	Acre	300	68	74
Other crops	do.	50	260	214
Fallow	do.	167	96	98
Prices paid	Index	100	120	121
Prices received	do.	100	93	86
Net farm production	do.	100	80	80

1/ Tentative October estimates.

higher than in 1947-49 while prices received will average approximately 24 percent lower. If current prices continue for the rest of the year, the price of butterfat probably will average about 13 percent lower and the price of hogs more than a third lower than in 1947-49.

Cotton Farms, Southern Piedmont

If prices received for lint and cottonseed on October 15 continue through December, net farm incomes of Southern Piedmont cotton farmers including about \$20 from the Soil Bank probably will average around \$1,470, about 35 percent below the unusually favorable year of 1955. This estimated decline in income is due mainly to lower yields. However, prices received for lint and seed also are averaging slightly lower in 1956. The yield of cotton is slightly above the longtime trend for the area, even though it is much below the 1955 yield. Yields of corn and oats were slightly above the longtime trend but the yield of wheat was lower.

Net farm production in 1956 is expected to be below 1955 but probably it will average about 18 percent above 1947-49. There has been an upward trend in net production per farm as a result of an increase in average size of farm and higher yields per acre.

If the average price received on October 15 for cotton continues for the rest of 1956, the index of prices received (1947-49=100) will drop from 102 to 97 in 1956. The index of prices paid will drop from 118 to 111. However, this index of prices paid on these farms was unusually high in 1955 because of record high yields of cotton and the resulting higher returns to cropper labor.

Winter Wheat Farms, Southern Plains

Net farm incomes on winter wheat farms in the Southern Plains probably will average about 9 percent lower in 1956 than in 1955. Most of this decline will result from lower yields of crops other than wheat and from lower prices received for products sold. The reduction in incomes would have been greater except for the relatively good yields of wheat. The yield of wheat in 1956 was slightly better than in 1955 and was the highest since 1952. Apparently the 1956 crop was largely made before the onslaught of drought. For these farms soil bank payments in 1956 are expected to average about \$85 per farm.

Production of sorghum both for grain and for forage and production of hay and pasture was down about a third from 1955. The tight feed supply in this area has made it necessary for farmers to reduce their numbers of roughage-consuming livestock by about 10 percent. In addition, the 1956 drought has significantly lowered the prospects for the 1957 wheat crop.

Prices received by wheat farmers in the Southern Plains are expected to average about 8 percent lower in 1956 than in 1955. This contrasts with about a 1-percent increase in prices paid for the goods and services used in production. Prices paid for commercial feed, seed, and some supplies were lower but prices paid for farm machinery and wage rates were higher.

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